



<b>Title</b>	<b>Virtual Outreach: A Randomized Controlled Trial and Economic Evaluation of Joint Teleconferenced Medical Consultations</b>
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<b>Reference</b>	Health Technol Assess 2004;8(50). December 2004. <a href="http://www.hta.ac.uk/execsumm/summ850.htm">www.hta.ac.uk/execsumm/summ850.htm</a>

## Aim

*Main trial:* To test the hypotheses that virtual outreach would:

- reduce offers of hospital followup appointments
- reduce numbers of medical interventions and investigations
- reduce numbers of contacts with the healthcare system, have a positive impact on patient satisfaction and enablement
- lead to improvements in patient health status.

*Economic evaluation:* To test the hypotheses that virtual outreach would:

- incur no increased costs for the NHS
- reduce the costs incurred by patients attending outpatient appointments
- reduce the time taken off work.

## Conclusions and results

Patients in the virtual outreach group were more likely to be offered a followup appointment. Significant differences in effects were observed between the two sites studied. Virtual outreach increased the offers of followup appointments more in Shrewsbury than in London, and more in ENT and orthopedics than in the other specialties. Fewer tests and investigations were ordered in the virtual outreach group, by an average of 0.79 per patient. There were no significant differences overall in number of contacts with general practice, outpatient visits, accident and emergency contacts, inpatient stays, day surgery, and inpatient procedures or prescriptions between the randomized groups. Tests of interaction showed evidence of differences in effects by specialty for number of tests and investigations ( $p=0.01$ ) and outpatient visits ( $p=0.007$ ). They indicated that virtual outreach decreased the number of tests and investigations particularly in patients referred to gastroenterology, and increased the number of outpatient visits particularly in those referred to orthopedics. Patient satisfaction

was greater after a virtual outreach consultation than after a standard outpatient consultation. However, patient enablement after the index consultation, and the physical and psychological scores of the SF12 for adults and the scores on the Child Health Questionnaire for children under 16, did not differ between the randomized groups at 6-month followup. Six-month NHS costs were greater for the virtual outreach consultations than for conventional outpatients, GBP 724 and GBP 625 per patient respectively. The index consultation accounted for this excess. Cost and time savings to patients were found. Estimated productivity losses were less in the virtual outreach group.

## Recommendations

Virtual outreach consultations resulted in significantly higher levels of patient satisfaction than standard outpatient appointments and led to substantial reductions in numbers of tests and investigations. The main hypothesis that virtual outreach would be cost neutral was not supported, but the hypotheses that patient costs and productivity losses would be less were supported. Changes in costs and technological advances may improve the relative position of virtual consultations.

## Methods

A randomized controlled trial compared joint teleconsultations between general practitioners (GPs), specialists, and patients with standard outpatient referral. It was accompanied by an economic evaluation.

## Further research/reviews required

- Long-term followup of patients in the virtual outreach trial to determine “downstream” outcomes and costs.
- Effectiveness and costs of virtual outreach used for followup appointments rather than first-time referrals.
- Effectiveness and costs of virtual outreach involving joint teleconsultations where a nurse rather than a GP accompanies the patient.